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BRAZILIAN BULLETIN

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LIBRARY CURRENT SERIAL RECORD SEP 16 1953 DEPARTMENT OF AGRICULTURE

Exchange-Saving Industries Appraised

Amazon Pulp Plan Studied

Three Mills Would be Built in the Region, to Produce a Million Tons Yearly

Brazil may become an exporter of wood pulp, essential base material for the manufacture of paper, according to plans which have been set up for a series of paper and pulp factories to be built in the state of Amazonas, aimed at a production of nearly a million tons a year.

Locations Chosen

One factory would be located on the Island of Marajó, in front of the Tocantins mouth of the Amazon, (Brazil's enormous "river-sea"), one at the mouth of the Madeira river (a tributary of the Amazon) and the third, at a point upstream from Manáus, the State capital.

Thousand Tons Daily

Each of the factories would have a production capacity of a thousand tons of pulp a day, or a combined yearly total of at least 900 thousand tons.

It is estimated that the production of paper and pulp in these three factories would provide an exchange saving of Cr$100 millions a year, equivalent to roughly $5 million, at the outset, besides providing a source of foreign exchange through sales for export.

Easy Timber Supply

Supply of logs to the factories would be easily obtained from the vast Amazon forests, which contain enough wood to supply the

(*See Page* 2)

Highway Construction is Pushed

This picturesque stretch of mountain highway, on the Itaipava-Terezópolis road, is a good example of modern construction techniques, utilizing banked turns. Highway construction poses many problems in Brazil, due to the mountainous nature of much of the terrain, is receiving close attention from the Administration. Budgetary assignments were stepped up about 70 percent from 1952 to 1953.

$1.5 Billions Will be Spent on Rio, São Paulo Public Services

Estimate on Next 10 Years' Investment is Presented By Mr. Henry Borden

Expansion of electricity, telephone and gas services for the cities of Rio de Janeiro and São Paulo during the next decade, from 1953 to 1962, is expected to cost $1.5 billion, according to Mr. Henry Borden, President of the Brazilian Traction Company.

Of this total, he added, about 75 percent, or $1.25 billions, will be invested in expansion of power supply.

The new investment thus in-

(*See Page* 6)

Fast Gains Anticipated

Benefits of $160 Million a Year, in 1956, Forecast in Six-Month Survey

Brazilian industries in essential fields now nearing completion will save the country $32 million in exchange during 1953, and almost $160 million by 1956, a six-month survey of the Brazilian economy shows.

Allowances Made

The survey, released at the end of July by "Conjuntura Economica", an authoritative publication by the Getúlio Vargas Foundation, points out that these figures allow for payments on interest and capital, and assume an annual increase in consumption of 5 per cent.

Factors Involved

"Such figures, of course, cannot be taken to represent a net saving of exchange," Conjuntura Econômica remarks, "since they imply either a diversion of factors of production from export activities, or greater demand for exchange as a result of additional profits. Nevertheless, there is no doubt that substantial relief can result from these new activities when they get under way."

Reflect Planning

The estimates quoted are evidence of the long-range planning which is being undertaken by the Brazilian government to improve the country's trade balance, and lessen dependence on imports.

Typical of the exchange saving activities now undergoing develop-

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Million-Ton Amazon Woodpulp Plan is Studied

Mills Would Be Built at Marajó, on Madeira River & Near Manáus

Program Based on Studies of Timbers, Performed in France and U.S.A.

(*From Page* 1)

entire requirements of the world for hundreds of years. The logs would be taken by water down to the three factories, from the lumber camps, thus saving transport costs.

Year-Round Operations

An interesting feature of the development would be that, to the contrary of what occurs in many Northerly paper producing regions of the world, year-round operations would be possible, on account of the climate.

Basis for Plans

Plans for the setting up of the three factories are based on studies which were carried out during the first half of 1953, simultaneously, in France and in the U.S.A., on samples of suitable Amazon timbers.

The National Agricultural Research Service of the Ministry of Agriculture sent to France a batch of 60 trunks of white timber, weighing eight tons, for tests in a pilot plant using the "Isogrand" process, it is reported.

Other Projects Ahead

The U.S. studies were made on a series of samples submitted by the Botanical Department of the North Brazil Agricultural Institute, and may, in addition to the wood pulp program, lead to the setting up of a complete forest-products project for the State of Amazonas.

Newsprint Situation

The urgency of development of the paper and cellulose industry in Brazil can be gauged from the fact that newsprint, one of the special items for which foreign exchange allocations are made by the Bank of Brazil, has to be imported to the extent of about $30 millions a year.

It is for this reason that development of the paper and cellulose industries in Brazil has been listed by the Industrial Development Commission as one of the preferred industrial activities.

Other Pulp Sources

Possibilities of producing cellulose in Brazil are not limited to the country's vast timber reserves.

The North-East of the country, especially the regions to be served by the Paulo Afonso development, is very rich in sisal, a plant which has been used to manufacture cellulose and a host of other products, in other parts of the world.

Bagasse Available

The sugar industry also provides huge quantities of excellent raw material for cellulose extraction, in the form of bagasse. Paper-producing qualities of bagasse have been extensively tested both in Brazil and abroad.

Bamboo, Rice Sources

Other useful sources of raw materials for paper making are bamboo shoots and rice straw. The latter provides ingredients which have been mixed with bagasse-pulp, in some industrialization projects, to provide a whiter grade of paper.

Rice straw would be plentifully available in Brazil, which produces over 3 million tons of rice a year.

Eucalyptus & Bananas

In São Paulo, the eucalyptus plantations, have been held to be a fine source of cellulose, and, in the coastal regions, a novel Brazilian process recently patented in London, could be used to extract cellulose from parts of the banana tree.

Pine Forests in South

In the South of the Country, the extensive pine-forests are a valuable source of raw material for cellulose manufacturing, and have already given rise to a powerful paper industry, one of whose units, the Klabin industrial group, was recently called "the largest investment in a single enterprise in the whole of Brazil."

Cost of Pulp Imports

The importance of pulp and paper industry developments in Brazil can readily be gauged by the fact that during the past three years Brazil has spent more than Cr$1.7 billion, or nearly $100 million, on imports of pulp, and though these imports were sharply tapered from 1951 to 1952, they still cost the country Cr$582 million, or over $29 million, in the latter year.

FAO Studies Used

The studies on the use of tropical wood pulp for paper making on which the Amazon advance projects are based on research by the Food and Agriculture Organization. The F. A. O. technicians reached the conclusion that a pulp industry for the production of paper from tropical and sub-tropical timbers and agricultural residues is a commercially practicable prospect.

Fast Expansion of Basic Industry Seen Saving Brazil Much Exchange

Manufacturing of Cement, Alkalis, Steel, Auto Parts and Pulp Pushed

(*From Page* 1)

ment in Brazil are the cement, paper and pulp, caustics, steel and auto-parts industries.

11 Cement Plants Ahead

In the cement field, no less than eleven new factories are under construction, distributed over many points of the territory of Brazil. With full utilization of plants at present under construction, output by 1955 should be more than 4 million tons. What this will imply in terms of exchange savings can be gauged by the fact that Brazil imported more than 800,000 tons of cement in 1952, at a cost of Cr$600 million (about $30 million).

Pulp Industries

The paper and pulp industry is also pressing forward to higher and higher goals. Newsprint, one of the essential imports for which special exchange reserves are assigned, represents a heavy strain on the country's foreign currency availabilities, yet prospects for development are bright, in the face of Brazil's great diversity of cellulose-bearing natural products.

Alkali Expansion

The caustics industry is due to achieve great progress, within the next few years, with the establishment of the National Alkali factory at Cabo Frio, in the State of Rio.

145,000 Ton Plant

Initial production of this factory is scheduled to be 100,000 tons of soda ash, and 45,000 tons of caustic soda. Exchange savings would be from $10 to $12 million in the beginning and as much as $30 million during later stages of development, when production is

(*See Page* 6)

Ruling on Traveling Salesmen's Samples

Commercial travelers visiting Brazil will be able to bring in their sample collections without need for import licenses, under the terms of a ruling disclosed by the Consultative Commission on Commercial Interchange.

Such samples, it is established, may be brought in for a year's stay, provided the interested party deposits an amount equal to the value of the merchandise or, alternatively, posts a bond of equal value.

Such deposit or bond is required as a guarantee to the National Treasury that the samples will be returned to country of origin.

Ten Million Ton Ore Port at Itacuruçá Planned

Aerial Survey of Region Scheduled

Would Also Handle Two or Three Million Tons of Coal per Year

Plans for building an ore and coal port at Itacuruçá, a few miles down the coast from Rio de Janeiro, moved one step further towards fulfillment recently, with the announcement that a commission has been set up in cooperation with the Director of the Department of Ports and Canals, for definite studies on the project.

The proposed port would be capable of handling up to ten million tons of iron ore exports a year.

It was disclosed that a public bid was to be called for on aerial surveys of the region of the proposed port.

S.A.L.T.E. Funds Sought

The Itacuruçá Port Commission will, it is added, ask for Cr$10 million (about half a million dollars) of S.A.L.T.E. plan funds to be placed at its disposal for studies on the port project.

The reasoning behind the Itacuruçá port development is that it is inadvisable to overload the port of Rio de Janeiro with the additional burden of handling eight to ten million tons of ore yearly. This applies, in particular, to the stretch from Japerí to the D. Pedro II station.

Existing Services

Rapid growth of industrialization, and increase in the population of Rio de Janeiro, is already placing a considerable load on this as on other railroads serving the capital.

It is alleged that, in addition to providing an independent, specialized port, the Itacuruçá project would be at least Cr$150 million cheaper in local expenditures than a project for further development of direct lines of access to Rio de Janeiro.

Economical Solution

Alternative estimates are said to have shown that additional development of direct lines to Rio, and amplification of the port of Rio might cost as much as Cr$500 millions plus $60 million in foreign currency, whereas the Itacuruçá development could be carried out at a cost of Cr$350 millions, and but $40 million in exchange.

Inclusive Estimate

This estimate includes the building of the railroad branch line, supply of 60 locomotives and 1,500 freight cars.

In addition to providing for iron ore exports of 6 to 8 million tons, Itacuruçá would handle 2 or 3 million tons of coal for internal consumption.

Significance of Project

The significance of the Itacuruçá project can readily be understood when it is estimated that Brazil iron ore, among the world's richest in content of Fe, reached a price of $15.00 per ton during 1952.

Exchange Possibilities

Exports of 8 to 10 million tons from the new port might therefore bring Brazil $120 to $150 millions a year in exchange earnings, thus paying for itself in trade balance benefits within less than a year of the date of commencement of full-scale shipments.

Present Ore Situation

At present, Brazil's premier ore port is Vitória, which last year earned Brazil upwards of $24 million in exchange, from shipments of about 1.5 million tons, plans to increase its capacity to 3 million tons yearly within the next few years.

Future Prospects

In addition to the demand for exports, Brazil's steel industry will demand larger and larger amounts of ore in the years to come.

A large ore port at Itacuruçá might well be a practical solution for rapid transport of ore along the coast to future steel mills in coastal sites, such as the project at present planned at Piassaguera, near Santos, and one which may be built in the state of Santa Catarina.

Another advantage of the Port

(*See Page* 6)

Big Source of Solid & Liquid Fuels

These babassú kernels, in addition to providing an oil considered suitable for driving diesel engines, have hard husks which burn to form a charcoal resembling metallurgical coke. Brazilian pilot plants are now carrying on tests of the fuel value of the husks. The babassú stands cover a huge expanse of the Brazilian territory, are most plentiful in the state of Maranhão. Total area covered by them is estimated to amount to about three per cent of the entire territory of Brazil. Oil yield might attain 150 million tons a year.

Value of Babassú Husk Coke Tested

Pilot Plant Demonstration Attended by Minister of Transport José Américo

Interest in the use of babassú kernels as a plentiful source of metallurgical charcoal was recently highlighted with the news that Minister of Transport José Américo had attended a special demonstration of a pilot plant for industrialization of babassú husks.

Research Council Sponsors

The tests are being carried out in Rio de Janeiro, by the Department of Illumination and Gas, under the sponsorship of the National Research Council of Brazil. Director José Ribamar Teixeira Leite, head of the Department's Laboratory, recently told the press: "Experiments were started two years ago. Up to now, fifteen distillation studies have been made, and fifty more are to be performed. These studies are aimed at the utilization of the babassú husks, which at present are being left where they fall, at the feet of the palms, involving wastage of a substantial source of power."

October Deadline

Engineer Teixeira Leite added that the Laboratory's research should be completed by October, after which it would report back to the National Research Council, through the Ministry of Transport.

Significance of Project

The significance of use of babassú husks as a source of fuel lies in two facts, namely, the widespread availability of this fuel-producing raw material in a region which up to now has been insufficiently supplied with power, and the high quality of the coke which can be obtained from the babassú husks.

Official Attention

As has been shown recently, and particularly emphasized with the setting up of the National Babassú

(*See Page* 6)

NEW DOLLAR RATE FOR OFFICIAL EXCHANGE

Effective August 3rd, the Bank of Brazil has established a new official selling rate of 18.82 and sight buying rate of 18.36 for the dollar.

The old rate of 18.72 remains effective on the official exchange market for pending collections and remittances for which provisional deposits were made by July 31st.

The alterations of the rates were made to permit absorption of the previously additional proportional stamp tax and thereby maintain a proper margin between buying and selling rates, it is announced.

This tax is a small, graduated one applicable on exchange transactions. It increases proportionately from Cr$2,00 on amounts of Cr.$50 thru Cr$500, up to Cr$6 on exchange transactions of Cr. $1.000 or more.

SEPARATE MINISTRY OF HEALTH AUTHORIZED

President Getúlio Vargas has authorized the establishment of a separate Ministry of Health. Formerly, public health matters were assigned to a joint organization, the Ministry of Health and Education. Observers saw in this move, a sign of intensification of public health programs.

Minister Antônio Balbino, recently appointed to head the former Ministry of Health and Education, will act as Deputy Minister of Health, it has been announced, until the appointment of the new Minister.

STADIUM FOR 45,000 BUILT IN INTERIOR OF SAO PAULO

Baurú, a fast-growing city in the heavy-industry region of São Paulo, is to have a stadium with capacity for 45,000 spectators, it has been announced.

Previously constructed in Rio de Janeiro was the world's largest stadium, holding 150,000, whilst the city of São Paulo is now also building a 150,000-seat stadium.

LEOPOLDINA R.R. GETS LATEST-TYPE LOCOMOTIVES

Thirteen "diesel hydraulic" locomotives, of German manufacture, called the most modern in the world, have been purchased by the Leopoldina Railroad as a part of the railroad rehabilitation program.

Brazilian News and Notes

BRAZILIAN TECHNICIANS PLAN JET PLANE

An experimental jet-plane is to be built by the Technological Institute on Aviation, at São José dos Campos, in the State of São Paulo, in cooperation with the Institute of Technology of the Aeronautical Park, it has been disclosed in Rio de Janeiro.

The plane would be entirely Brazilian-designed and built, with the exception of the reaction motor, which would be imported.

Jet 'planes of foreign design are also to be built in Rio de Janeiro, at the Galeão airport, under licence from the Dutch Fokker concern, which recently signed a contract with the Brazilian government for this purpose.

SAO PAULO WILL HAVE FIRST OCEANOGRAPHIC SHIP IN SOUTH AMERICA

The Oceanographic Institute of São Paulo has announced that it has purchased an oceanographic vessel with an operational radius of 4,500 miles.

The ship, built in Brazilian shipyards, has a deadweight of 200 tons, is about 100 feet in length and is driven by a 400 H.P. diesel motor.

It is said to be the first of its type in South America.

In addition to normal living quarters the São Paulo vessel has physical, chemical and biological laboratories.

MERCEDES-BENZ TO BUILD IN SAO PAULO

Mercedes-Benz trucks are to be built in São Bernardo, about ten miles from the state capital.

Recently purchased by Mercedes Benz representatives in Brazil, "Distribuidores Unidos do Brasil, S.A.", in cooperation with the German Daimer-Benz concern, was a 3,000,000 square foot lot for the new plant.

GLENN FORD MAKES 3-D MOVIE IN BRAZIL

American cinemactor Glenn Ford is reported to be making a three-dimensional film in color for the Brazilian "Vera Cruz" Company.

WHEAT FESTIVAL SLATED FOR NOVEMBER

Development of wheat-growing in Brazil is to be emphasized next November with the holding of the Third National Wheat Festival at the city of Erechim, in the State of Rio Grande do Sul.

Erechim is to be the site of a large grain warehouse, planned as one of the series now being constructed by the Brazilian Federal government.

Plans call for a production of about a million tons of wheat a year in Rio Grande do Sul by 1960. Last year's output of the state was about 450,000 tons, out of a total national production of nearly 600,000 tons.

BRAZILIAN TECHNICIAN PRODUCES FULL-LENGTH CARTOON MOVIE

The first full-length cartoon movie ever produced in Brazil was recently launched in Rio de Janeiro.

Entitled "Sinfonia Amazônica", it deals in a whimsical manner with adventures in the immense forests of the Amazon region.

In São Paulo, the film is to be presented as a premiere in the Museum of Modern Art, at a special session.

CAMPINAS BUILDS FAST

834 buildings, covering at total area of over 760,000 square feet, were built in the city of Campinas, in the interior of the state of São Paulo, up to the month of May, 1953, according to the City Department.

This is an average of six buildings a day, a rate of construction almost proportionate to that of the ten-times larger city of São Paulo city, which had an average of about 50 buildings a day during 1952.

JAPANESE STEEL MASTERS EYE BRAZIL

Recent visitors to Brazil were Messrs. Iusaki Tanaka and Jinnojo Hayashi, President and Manager of Nippon Steel Tube Company, one of the four largest Japanese steel mills, who are reportedly studying possibilities of establishing a stel plant in Brazil.

FUNDS FOR CUBATAO FERTILIZER PLANT OK'D

The National Petroleum Council is to receive Cr$87.4 millions, or about $4.3 million, from the Ministry of Finance, for purchase of equipment for the establishment of a nitrogen-base fertilizer plant in the neighborhood of the Cubatão refinery, it is announced.

The plant will produce ammonia, nitric acid and ammonium nitrate with equipment imported from Germany.

It is hoped that 80 percent of the equipment to be imported will have reached Santos by the end of 1953.

BRAZIL BUILDS DREDGING CRAFT

Two 440-horse power tugs and six bottom-discharging barges built in Brazil from Volta Redonda steel were recently delivered to the National Department of Ports, Rivers and Canals.

The Diesel-MAN Motors for the tugs were imported from Germany, but the rest of the equipment was entirely constructed in Brazil. Only equipment for the barges not produced in Brazil was the steel cable.

These eight vessels will be assigned to duties connected with the government's dredging program, covering more than fourteen Brazilian ports at strategic points of the 5,000-mile coastline.

NEW CONSULAR INVOICE NOTATIONS

The Consulate General of Brazil, in New York, is reminding shippers that consular invoices and airway bills must now bear a notation as to whether the exchange is free or official.

When both types of exchange are involved on one document, the percentage of each is to indicated on the consular invoice.

ARTHUR REIS BECOMES AMAZON VALORIZATION PLAN SUPERINTENDENT

Recently appointed superintendent of the Amazon Valorization Plan was Mr. Arthur César Ferreira Réis, former Director General of the Department of Administration of the Ministry of Labor, Industry and Commerce.

Mr. Juvenile Pereira, an economist and journalist, will replace Mr. Ferreira Réis at the head of the Department of Administration.

July-December Cocoa Exports May Earn $54 Million

Jan/June Figures Bear Out Estimate

Cocoa Paste Shipments Up 143%, Bean Exports Up 68.5%, Over 1952

Cocoa and cocoa sub-products may bring Brazil foreign exchange earnings equivalent to about $54 million during the second half of 1953, according to a recent estimate published by the Brazilian press.

Crop Estimates Cited

This estimate is based on the fact that the yield of the 1953-1954 crop, which will start in September, is expected to attain a figure of 72,000 tons.

Adding to this 48,000 tons of the "temporão" (late harvest), a total of 120,000 tons would be available.

Sales Expectations

Of this crop, according to some cocoa circles, as much as 66,000 tons of cocoa beans may be placed in foreign markets, thus netting Brazil about $44 millions.

It is anticipated that exports of cocoa butter, cocoa cake and cocoa paste may bring in a further $10 million.

Stronger Tone Noted

Figures disclosed a few weeks ago by informed sorces show that these estimates are based on a much stronger tone in the cocoa export market for the first six months of 1953, with increases of up to 143 percent over the figures for the corresponding period of 1952.

Cocoa Bean Exports Up

Between January and June, 1953, Bahia cocoa exports were 545 734 bags, compared with 266,372 bags for the like period of the previous year.

These first half 1953 shipments brought Brazil Cr$368 million in foreign exchange, compared with Cr$218 million for the corresponding months of last year, a boost of 68.5 per cent.

U. S. Gets Most

Of the 1953 total, 257,525 bags went to the United States, almost as much as complete exports for the like period of the previous year. Germany took 93,560 bags.

Bahia shippers exported 10.7 million pounds of cocoa butter, valued at Cr$154 million between January and June this year; last year the corresponding totals were 7.5 million pounds and Cr$74.5.

The percentual increase in value in this case was 106.8.

143% Rise Observed!

The most striking increase was that shown by Bahia exports shipments of cocoa paste, which rose 143.7 percent during the first half of 1953, as compared to the like period last year.

This year's Bahia shipments, through end June, netted the country Cr$32.9 million, compared to but Cr$13.4 for the first half of 1952.

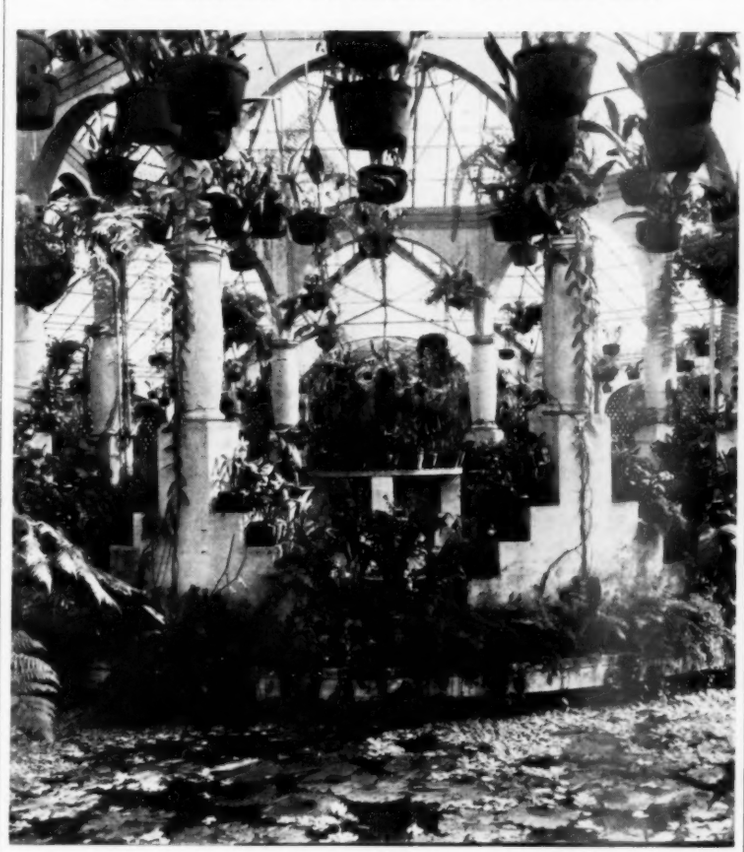
Cocoa cake exports from Bahia, at Cr$26 million for the January-June period of this year, were up 31.5 percent over the Cr$20 million earned for the first half of 1952.

May Reflect Facilities

The increase in shipments of the cocoa by-products, butter, paste and cake, for the period in question, may partly reflect the exchange facilities which were granted on them early in the year, by the Bank of Brazil, whereby fifty percent of exchange earnings could be sold at the free market rate.

These facilities for certain export products listed in Brazilian Bulletin No. 230 for July 15th are effective thru' December 1953, and the bank has declared that, if renewed in 1954, they will then be applicable on the basis of a 40 percent free rate sales.

Brazilian Orchids in Bloom



In a picturesque hot-house in São Paulo, strange varieties of Brazilian orchids are brought to perfection. The country's mild climate, without extremes of heat or cold, makes it an ideal habitat for a huge range of plants, from the captivating and exotic orchids to the life-saving ipecacuanha, source of the anti-malarial drug emetine.

Germans, Dutch Aid Fishing Plans

Modern Ships Will Operate Out of Santos, Supply São Paulo Market

Six modern German fishing boats and one Dutch vessel are coming to Brazil to help develop the fishery trade, it was recently announced.

These vessels, which are all of the most up-to-date type, will operate out of the port of Santos, and supply fish to the market in the State of São Paulo.

Special authorization was granted for the vessels to come, with a view to not only increasing supplies of fish to the market, but also aid in the training of Brazilian crews in modern fishing techniques.

Means for increasing the haul of fish along the Brazilian coast line have long been receiving attention. This coastline, nearly 5,000 miles in length, and dotted with nearly one hundred forty ports, has the added advantage of allowing year-round operations, due to the warm Brazilian climate.

The states in which fisheries have so far been most intensively developed are Maranhão, Rio de Janeiro, Rio Grande do Sul and São Paulo.

Yearly production is over 300 million pounds, valued at about $50 to $60 million.

However, this production is small compared to the results which could be achieved.

In addition to the possibilities of supplying fresh fish direct to the great consuming markets, such as Rio de Janeiro, and São Paulo, the market for canned fish could be expanded through modern merchandising techniques, and possibilities of export explored.

(In this connection, it is interesting to note that one Brazilian canned product, "Hearts of Palm" (made from the succulent core of the palm tree) is already known and enjoyed in the U.S.)

Best Brazilian fish for industrialization purposes, experts have said, is the albacore, a white-fleshed fish of the tuna family.

Rio, São Paulo Power Increase Plans Outlined

Henry Borden, 'Brazilian Traction' President, Cites Expansion Ahead

1953 Investment Total Is Estimated At $100 Million

(*From Page* 1)

volved will imply an increase of about 225 percent over existing investments, as of December 31st, 1952 which amounted to about $700 million of which some $360 million was invested between 1946 and 1952. The company's estimates of investments for 1953 amount to about $100 million.

Extensive Operations

It has some 50,000 shareholders, mostly in Canada, operates only in Brazil, and supplies power to the two principal cities in Brazil, besides operating the telephone services of the Federal District, São Paulo, and the States of São Paulo, Rio de Janeiro, Minas Gerais and Espirito Santo, supplying gas to São Paulo, Rio de Janeiro and Santos, and operating the Federal District tramway service.

Present Power Output

Total power output of the group at the moment is of the order of 1,000,000 kilowatts, but three large projects, now under construction, are planned to provide an increase of nearly 800,000 kilowatts, all of which is to be available within the next two or three years.

3 Projects Described

Of these projects, Mr. Henry Borden said as quoted in the Brazilian press: "The first of the three installations . . . is the Piratininga Thermo-electric plant, which will at the outset have two steam turbo-generators, each for a maximum capacity of 100,000 kilowatts.

Will Operate Shortly

"We hope to inaugurate the first group of this plant in August, 1954, and have the second group in operation three or four months afterwards.

New Cubatão Plant

"The second great installation planned to increasing generating capacity in the São Paulo area is the Cubatão Underground hydro-electric plant.

"Initial output of this plant will be 260,000 kilowatts, the first unit being scheduled to start operating at the end of 1955, with the other three units, of 65,000 kilowatts capacity each, entering into operation at the beginning of 1956. The main components of this plant, including those intended for the obtaining of the necessary extra water supply, have been ordered since 1950.

Forçacava Project

"The third great installation to which I have made reference is the Forçacava Underground hydro-electric plant. This project can be carried out thanks to the diversion of water from the Paraíba and Piraí rivers.

"The Forçacava plant, from the technical and the financial point of view, is one of the greatest hydro-electric developments in the world, and involves an expenditure of more than $100 million."

Itacuruçá Ore and Coal Port Planned

(*From Page* 3)

of Itacuruçá would be the freight saving obtaining by turning coal-bringing ships around with ore, and thus avoiding any costly trips in ballast.

Such ships, coming from Santa Catarina with coal, could return with iron ore for the Santa Catarina mills, with the additional advantage of cheap water-born freight on the ore.

For news of an additional proposal, aimed at providing further iron ore export possibilities of some 7 million tons, please see page 7 of this issue.

Value of Babassú Husk Coke Tested

Plentiful Palms are Found to be a Source of Both Liquid & Solid Fuel

(*From Page*)

Institute, Brazil has valuable oil-producing possibilities in its immense babassú stands, which cover about 120,000 square miles, and are most abundant in the State of Maranhão.

Abundant Raw Material

Total yearly production from these palms might attain as much as 150 million tons of an oil altogether suitable for driving diesel engines. When it is remembered that for each ton of oil, about a ton of husks are also obtained, it can be seen how vast a reserve of coke-producing husks would be available in the North-East of Brazil.

Observations Cited

Of this coke, an observer has written:

"It is of the metallurgical coke type, and considered by many to be superior to the Cardiff coke.

"It was analyzed in France, and proved to be of high quality, since it contains neither sulphur nor arsenic.

Low in Phosphor, Ash

"Furthermore, the percentages of phosphorus and ash are minimum. An analysis carried out in Berlin gave highly favorable results for babassú charcoal, showing a heat production of 8,000 calories.

"This charcoal has excellent ore-reducing qualities and produces steel of exceptional quality."

NOTE

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Basic Industrial Production Hiked

Local Manufacture is Seen Saving Brazil Substantial Exchange Expenditure

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stepped up to meet the rapidly growing demand.

Caustic soda imports cost Brazil about Cr$560 millions, or approximately $28 million, in 1951 and 1952.

Cost of Steel Imports

Brazil had to import 107,000 tons of steel during 1952, to supplement its domestic production of 810,397 tons. These imports cost it Cr$569 millions, nearly $28.5 million. The outlook for steel independence is very bright, however.

Volta Redonda Expansion

The second phase of expansion of Volta Redonda, the country's largest steel plant, is nearing completion, will raise the plant's output from around 470,000 tons a year to at least 700,000, which should boost total production to more than 1.2 million tons, without taking into consideration other developments, such as the expansion of the Itabira (Acesita) steel mill and a number of new projects, such as the Piassaguera plant, planned to be built near Santos, and to start construction before the end of this year, and the steel mills to be established at Vitória, in the State of Espírito Santo, by joint Brazilian and Germany initiative. The latter two plants will have an eventual joint capacity of perhaps as much as 1.4 million tons.

Steel Exports Ahead?

These facts lend point to the observations contained in a recent newspaper article in the Brazilian press to the effect that the day is not far distant when the country may enter the ranks of those exporting steel instead of importing it.

New Railroad Outlet for Minas Iron Ore Studied

Would Include 120-Km Conveyor Belts From Mountains to Coast

System Would be Designed for a Capacity of Ten Million Tons Yearly

In recent years, attention has been focussed more and more on the exchange-earning significance of Brazil's mineral exports.

It has sometimes been alleged that mineral ore exports may one day be for Brazil a source of foreign exchange comparable to what coffee represents.

Among the more noteworthy developments in ore export expansion in Brazil is the Companhia Vale do Rio Dôce, which last year earned about $24 million dollars on exports of 1.3 million tons, and is now planning expansion to attain a yearly total of 3 million tons.

Another bold plan which is receiving close study is the project to build a 10,000,000-ton a year ore port at Itacuruçá, which would also handle three million tons of coal for Volta Redonda.

Top-ranking Brazilian engineers have long given thought to the allied problems of ore extraction and ore transport, and the merits and difficulties of the various means of providing for the expansion which Brazil's industrial growth, and need for a greater volume of foreign trade.

In the recent First Industrial Congress of São Paulo, Brazilian technicians had an opportunity to listen to an ambitious project presented by railroad specialist Dermeval Pimenta, former president Cia. Vale do Rio Dôce and now administrator of the Rêde Mineira de Viação.

Basically, Engineer Pimenta's project would call for the construction of a special railroad for additional large-scale transport of ores from Central Minas Gerais to the Brazilian steel mills and for export.

By this means, it is stated, ten million tons of ore could be transported, two millions for the Paraiba Valley (where Volta Redonda is located) and São Paulo, two millions for steel mills at Angra dos Réis, at the southern end of the State of Rio coastline, and Santa Catarina, and six millions for export.

Such exports would be worth nearly $90 millions to Brazil, at present ore values.

An additional advantage of the proposed project is that it would pass through the region of São João del Rei, where there is much limestone and manganese.

States engineer Pimenta: "The iron ore beds of the upper São Francisco valley are located in the complex valley system of the Rio Paraopeba and the Rio das Velhas.

"Total ore reserves in this region are perhaps as much as eight billion tons, inasmuch as the estimates of total availabilities in the "Iron Quadrilateral" (within which it lies) amount to fifteen billion."

"More than eight hundred million tons of compact hematite, suitable for exports, have actually been surveyed in the region.

"The supply of ore suitable for the steel and iron industries of Minas Gerais, Volta Redonda and São Paulo, is practically inexhaustible."

To meet the double requirements of mass exports of iron ore and to encourage the agricultural and industrial development of the iron-bearing region, he suggests the building of a special railroad, directly linking the "Iron Quadrilateral" with the port of Angra Dos Reis which would start at the station of Jeceaba, in the heart of the ore region, at an altitude of more than 2,500 feet, and run South to São João del Rei, where it would serve the limestone, pegmatite and tin ore beds, and become a means of transport for the vast deposits of uranium-bearing minerals which have been discovered in the neighborhood.

Proceeding South once more, the line would link in with the Rêde Mineira de Viação, near the station of Andrelândia, at an altitude of nearly 3,000 feet.

The length of the connection between Jeceaba and Andrelândia would be about 100 miles.

From Andrelândia, the new line would run in the same general direction of the Rêde Mineira de Viação, up to the Augusto Pestana pass, at the crest of the Serra de Mantiqueira (mountain range running approximately parallel to the coast).

At this point, the line would be at an altitude of more than four thousand feet.

From there any of three alternative solutions could be adopted.

The Rêde Mineira de Viação electrified line joining Augusto Pestana, Barra Mansa and Angra dos Reis could be re-equipped, to permit intensified traffic. This would be only a temporary solution, however.

A second solution would be to prolong the proposed new ore line to the port of Angra, passing through Barra Mansa.

This would involve the construction of a new stretch about one hundred miles in length.

The third proposal which has been put forward is for the construction of a conveyor belt from the crest of the mountain range over a distance of about 120 km.

It is this solution which has been considered most suitable by engineer Pimenta, as quoted in the Brazilian press.

He points out that if a series of ore warehouses were built at Augusto Pestana, a double system of conveyor belts from that point would make it possible for ore to be carried down to the coastal plain, and coal brought up from the plain, at the same time.

Estimates show that a 36-inch wide double conveyor belt could carry 2,400 tons of ore an hour, downhill, on one side, whilst on the other side 800 tons of coal an hour were brought up from the coast. (The ore weighs approximately three times as much as the coal, volume for volume.)

The Brazilian railroad engineer points out that there is precedent for such long conveyor belt developments, since the Riverlake Belt Conveyor Line, Inc., in the U.S.A., designed a double belt more than 200 kilometers in length, to connect the Lake Erie iron beds to the Virginia coalfields.

The belt conveyor proposed in this case would be constructed in two parts. The first part would be about 50 kilometers in length, and would extend from Augusto Pestana down to Volta Redonda, a distance of about 50 kilometers, with a drop in altitude of some 800-meters.

From Volta Redonda, the system would extend a further 70 kilometers, first of all rising 224 meters in altitude, to reach the crest of the coastal range, and then dropping a final 600 meters, down to the port of Angra.

The capital investment called for by the entire project is about Cr$1.2 billions, or roughly $60 millions at par. About half of this would be spent on the 120-kilometer conveyor belt.

The author of the project declares that the use of the conveyor belt system is particularly justified in this case because of the extremely mountainous nature of the terrain involved. He emphasized that such belts can be used over regions where no other systems of transport, except airplanes or cableways, would be suitable, and that ore can be transported over 32% gradients.

An additional advantage of conveyor belts is that the force of gravity can be utilized to produce power, on the down grades, when merchandise of considerable specific gravity is being transported.

It is claimed that the consumption of power, in conveyor belt systems, is lower than in any other form of transport.

Engineer Dermeval Pimenta, as reported in the Brazilian press, claims for this system at least six distinct advantages; 1) Alleviation of heavy pressure on existing railroad lines; 2) better raw material supplies to Volta Redonda and the Barra Mansa factories; 3) Stepped-up supplies of ore to the São Paulo steel mills. 4) The improved connections with Minas Gerais would give rise to new industries in the interior of the State, namely, in the Paraopeba valley and at São João del Rei; 5) Intensification of coal imports through the port of Angra, with resultant benefits to industry; 6) Facilities for earning a further $90 to $100 dollars yearly in additional ore exports.

OPPORTUNITIES IN BRAZILIAN TRADE

The Brazilian Government Trade Bureau has received the following inquiries from businessmen in Brazil, who desire to export or import the products listed below. These inquiries are published as received and no representation is made as to standings of listed firms. We suggest that the parties interested write directly to these firms, via airmail, as well as to this office, at 551 Fifth Avenue, New York 17, N. Y.

BUYERS WANTED

All kinds of **BRAZILIAN HARDWOODS.** Trepper & Cia., Ltda., Caixa Postal 2621, Rio de Janeiro, Brazil. CABLES: TIMBER.

BRAZILIAN No. 1 CASTOR OIL. Sociedade de Óleos Ltda., Rua Júlio Adolfo 3 (térreo), Salvador, Bahia, Brazil.

PINEWOOD, TAPIOCA FLOUR, PEARL SAGO, SASSAFRAS AND CASTOR OILS. Ernesto Mueller, Caixa Postal 277, Florianópolis, Santa Catarina, Brazil.

SISAL FIBERS, CASTOR OIL, MINERAL ORES. Francisco Melo & Filho, Avenida D. Pedro II, 144, João Pessôa, Paraíba, Brazil.

BRAZILIAN PINEWOOD, 60% in 1" thickness, 25% 1½", 15% 2", in 6, 8, 10 and 12" widths. Shipment from Itajaí, Santa Catarina. Manoel Jacinto Ferreira, Avenida Nilo Peçanha 12, 10.°, salas 1013/15, Rio de Janeiro, Brazil.

VEGETABLE OILS, ESSENTIAL OILS, VACCUM CATTLE HIDES, FIBERS, WAXES, COCOA BUTTER, OIL SEEDS, MENTHOL, etc. Thela Comercial, S.A., Praça Mauá 7, 12.°, Rio de Janeiro, Brazil.

COCOA, CAROÁ FIBER, SISAL FIBER, CASTORSEED, CASTOR OIL. Indústrias Reunidas Dafonte Ltda., Caixa Postal 1501, Recife, Pernambuco.

BABY CARRIAGES, BRAZILIAN-MADE. Indústria de Brinquedos Guarani, Caixa Postal 232, Pôrto Alegre, Rio Grande do Sul, Brazil.

BRAZILIAN HARDWOODS (JACARANDÁ, CEDAR, PEROBA DO CAMPO, IPE TABACO, Others). Exportadora & Importadora Guavinipan Ltda., Caixa Postal 5444, Rio de Janeiro, Brazil.

TANNED ALLIGATOR PARTS (SIDES, NECKS, LIMBS, TAILS) AND ENTIRE SKINS. LAST CROP. SHIPPING SCHEDULE: MAY/JUNE AUGUST/SEPTEMBER. Fábrica de Artefatos de Couro Berco Ltda. Rua dos Inválidos 185, 1.°, Rio de Janeiro, Brazil.

BRAZILIAN HARDWOODS: JACARANDÁ and IPÊ-PEROBA. Buaiz, S.A., Caixa Postal 113, Vitória, Espírito Santo, Brazil.

DRIED BANANAS wrapped in **CELOPHANE.** Euclydes de Oliveira, Caixa Postal 1358, São Paulo, Brazil.

EQUIPMENT FOR BRICK-MAKING, WOOD-WORKING, RE-TREADING, VULCANIZING of TIRES. Máquinas Marek Ltda., Caixa Postal 48, Carazinho, Rio Grande do Sul, Brazil.

BRAZILIAN LIQUEURS, under brand-names **"OLIVETANO"** and **"ALKERMES",** Andrade & Bassi Ltda., Rua Xavier de Toledo 14, 6.°, sala 615, São Paulo, Brazil.

BRAZILIAN TIMBERS of all types. L. C. Valente & Cia., Ltda. Rua Sete de Abril 277, São Paulo, Brazil.

MAGNESITE, BERYLLIUM ORE, RUTILE, BAUXITE, GRAPHITE, MICA, SEMI-PRECIOUS STONES, QUARTZ, MANGANESE ORE, SCHEELITE, PYRITES, ROCK CRYSTAL, ANGICO BARK, IPECACUANHA ROOTS, CASHEW NUTS, EUCALYPTUS LEAVES, OILSEEDS, VEGETAL WAXES AND OILS, SUGAR, ALCOHOL AND SUGAR CANE BRANDY. Sociedade Pernambucana de Indústrias Gerais Ltda., Caixa Postal 1085, Recife, Pernambuco, Brazil.

BRAZILIAN DINING-ROOM AND BEDROOM FURNITURE. Brazil Timbers Ltda., Curitiba, Paraná, Brazil.

BRAZILIAN PINEWOOD, ROUGH-SAWN, PLANED and **BED-SLATS.** C. Luiz Pandolfo & Cia., Ltda., Caixa Postal 1851, Porto Alegre, Rio Grande do Sul, Brazil.

SISAL FIBERS, LEATHER ARTICLES, COGNAC, COCOA LIQUER, EMBROIDERIES, GRATED COCONUT. Corretagens e Representações "CRISA" Ltda., Avenida Almirante Barroso 2, 11.°, sala 1106, Rio de Janeiro, Brazil.

BRAZILIAN PINEWOOD. Indústria de Madeiras Esmeralda Ltda., Caixa Postal 132, São Leopoldo, Rio Grande do Sul, Brazil.

BRAZILIAN HARDWOODS: Pernambuco wood: (for violin bows) "Sebastião d'Arruda", Rose wood, Massaranduba, Cabrália and Sucupira. Brandão, Filhos & Cia., Ltda., Caixa Postal 42, Salvador, Bahia, Brazil.

GRAPHITE. Representações Fortaleza Ltda., Caixa Postal 885, Fortaleza, Ceará, Brazil.

BRAZILIAN PINE, rough and planed. C. Luiz Pandolfo & Cia., Ltda., Caixa Postal 1851, Pôrto Alegre, Rio Grande do Sul, Brazil.

SELLERS WANTED

WHEAT FLOUR, PORTLAND CEMENT, FARMING IMPLEMENTS, GALVANIZED SHEETS, ZINC SHEETS, BARBED AND PLAIN WIRE, SULPHUR, VASELINE, PARAFFIN, AND AUTO PARTS. Ribeiro, Santos & Cia., Ltda., Caixa Postal 494, Salvador, Bahia, Brazil.

LUBRICATING OILS and **GREASES, PITCH, SULPHUR, CAUSTIC SODA, TURPENTINE, CRUDE METALS FOR ROLLING MILLS, BARBED WIRE, CLIPS FOR FENCES, WHEAT FLOUR.** Carlos Moreira daSilva, Rua da Quitanda 176, 2, Rio de Janeiro, Brazil.

AUTO PARTS, ACCESSORIES, RADIOS and **ELECTRICAL EQUIPMENT.** Organização Brasileira de Representações Ltda., Caixa Postal 1468, Recife, Pernambuco, Brazil.

PHOTOGRAPHIC, PHOTOSTATIC, ENGINEERING and **SURVEYING SUPPLIES** and **INSTRUMENTS.** J. M. Monteiro & Cia., Ltda., Rua Gambôa do Carmo 119, 10.°, Recife, Pernambuco, Brazil.

MISCELLANEOUS

AMERICAN LADY in São Paulo assists visitors as public stenographer, guide, interpreter, general adviser, etc. Mary Wynne Tadema, Lord Hotel, Avenida São João 1173, São Paulo, Brazil. Telephone: 52-6111, Ext. 1710.

Brazilian lawyer, banker and businessman, at present in New York City, would be glad to discuss Brazilian affairs with interested parties. Please write c/o Brazilian Government Trade Bureau, for interviews.

Land for sale in the Serra Negra region, Municipality of Guaraqueçaba, 100 km. from port of Paranaguá. Fertile soil, much timber, suitable for coffee, rice, tobacco, and colonization projects. Area about 10,000 alqueires. Hélio Stachero, Rua Carlos de Carvalho 362-1°, Curitiba, Paraná, Brazil.

Industrial Site for sale, in city of Ponta Grossa. Area: 121,000 square meters, price: Cr$500.000,00. Ceramic and tanning industries in neighborhood. Lascinio Carnasciali, Avenida Vicente Machado 1085, ap. 2, Curitiba, Paraná, Brazil.

"Two-Way" Conversion Tables of Weights & Measures, suitable for firms engaged in trade with Brazil published by Abbey Books, P.O. Box No. 405, Greenwich, Connecticut.

Association in three mica mines near Governador Valadares is offered to U.S. firms, on basis $30,000 development loan payable with production. Brasam, Importadora e Exportadora Brasil-America Ltda., Caixa Postal 4660, Rio de Janeiro, Brazil.

REPRESENTATIVES

SALES REPRESENTATIVES in U.S. required by exporter of sawn **BRAZILIAN PINE,** planed or rough, also knocked-down fruit boxes. Ernesto Fritschar, Caixa Postal 1994, Porto Alegre, Rio Grande do Sul, Brazil.

Manufacturers or exclusive exporters of **AGRICULTURAL** and **INDUSTRIAL CHEMICALS** and **STEEL PRODUCTS** desired by Maks A. Fiksel, Caixa Postal 4137, São Paulo, Brazil.

PURCHASING REPRESENTATION for Brazilian pine offered to U.S. importers by A. G. Pimenta & Cia., Caixa Postal 34, Ponta Grossa, Paraná, Brazil.

Representation in Rio de Janeiro offered to U.S. firms by young man with full knowledge of English and Portuguese, import business laws and regulations. F. Fernandes, Caixa Postal 4749, Rio de Janeiro, Brazil.